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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, CAM LINH T

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,236

Applicant(s)

GAUSSIER ET AL.

Examiner

CamLinh Nguyen

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 8, 10, 12 – 16, 20 – 23, are rejected under 35 U.S.C. 102(b) as being anticipated by Francis et al (U.S. 5,761,418).

♦ As per claim 1, 8, 10, 12 – 16, 20 – 23,

Francis et al (U.S. 5,761,418) discloses a method for clustering a plurality of documents (See Fig. 1, documents a – k, col. 9, lines 1 – 6) in a hierarchical data structure (See Fig. 5) comprised of a plurality of clusters (see Fig. 1, clusters A – C), wherein each document includes a plurality of words (col. 7, lines 15 – 16), the method comprising:

- “Accessing the document collection” See Fig. 2, fig. 15, element 1540, col. 8, lines 13 – 25.
- “Performing a clustering process that creates a hierarchy of clusters that reflects a segregation of the documents in the collection based on the words included in the documents” See Fig. 1, col. 7, lines 4 – 31. The resources are linked to each other by a path or links. In other words, the first resource links to second, and the second resource can link to third resource by its terms as shown in Fig. 5. The Fig. 5 shows searching branching out within the clusters (col. 13, lines 45 – 51). Clearly, this is a hierarchical structure of the clusters.

Art Unit: 2171

- "Wherein any document in the collection may be assigned to a first cluster in the hierarchy based on a first segment of the respective document, and the respective document may be assigned to a second cluster in the hierarchy based on a second segment of the respective document" See Fig. 1, col. 6, lines 59 – 62, col. 7, lines 10 – 12.
- "Wherein the first and second clusters are associated with different paths of the hierarchy" See Fig. 5.
- "Storing a representation of the hierarchy of clusters in a memory" See Fig. 15, col. 8, lines 13 – 25.
- "Making the representation available to an entity in response to a request associated with the document collection" See Fig. 4, 6, col. 5, lines 42 – 53.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2171

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2 – 7, 9, 11, 17 - 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Francis et al (U.S. 5,761,418) in view of Agrawal et al (U.S. 6,233,575).

♦ As per claim 2, 9, 11, 17 - 18,

Francis discloses a method for clustering a plurality of documents based on keywords. Francis does not clearly disclose that setting a probability parameter to an initial value, and assign documents to a cluster based on the value.

However, Agrawal, on the other hand, discloses a multilevel taxonomy based on features derived from documents classification using fisher values as discrimination value (see the title). Agrawal teaches that the clusters can be regarded as classes (col. 7, lines 64). As shown in Fig. 2 of Agrawal, there are plurality of classes represented by nodes (col. 10, lines 59 – 65). Documents are classified to nodes by calculating the statistics of the terms in the documents (col. 10, lines 66 – col. 11, lines 2).

Classification of a document starts at the taxonomy root by assigning a score to each child of the root. (Col. 14, lines 50 – 53). Therefore,

- “A first class” corresponds to the root.
- Each node or sub node corresponds to a parameter with a certain value.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Agrawal into the system of Francis because the

Art Unit: 2171

combination would provide a scalable, efficient, reliable, and semi automatic organization and reorganization of a database (col. 4, lines 30 – 34, Agrawal).

♦ As per claim 3, 19,

- “Determining whether the first class has split into two child classes” See Fig. 2, element 22 (first class), element 24 – 28 (child classes) (col. 9, lines 50 – 67, Agrawal).

♦ As per claim 4,

- “Repeating the step of determining for each document in the collection” See Fig. 4, col. 18, lines 17 – 20, Agrawal.

♦ As per claim 5 – 7

- “Performing the clustering process” col. 14, lines 33 – col. 18, lines 27, Agrawal.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ruocco et al (U.S. 5,864,855) discloses a parallel document clustering process.
- Aoki et al (U.S. 6,078,913) discloses a document retrieval apparatus.
- Vaithyanathan et al (U.S. 5,819,258) discloses a method for automatically generating hierarchically categories from large document collections.
- Frederick Herz (U.S. 6,460,036) discloses a system and method for providing customized electronic newspapers and target advertisements.
- Hajime Takano (U.S. 5,983,246) discloses a distributed document classifying system for document classifying.

Art Unit: 2171

- Rennison et al (U.S. 6,154,213) discloses an immersive movement-based interaction with large complex information structures.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CamLinh Nguyen whose telephone number is 305-1951.

The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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WAYNE AMSBURY
PRIMARY PATENT EXAMINER